

DPW Commissioner Meeting - Long Beach Seawall
February 5, 2013, 7pm
Conference Room A, Town Hall

Three DPW Commissioners met in Conference Room A in Town Hall on Tuesday, February 5, 2013 at 10am with Rebecca Haney, Coastal Geologist and Kathryn Glenn, Regional Coordinator, from Coastal Zone Management, DPW Director J. Parisi and T. Olson, Asst. DPW Director

Bill Wagner from the Finance Committee was present.

DPW Chair Gardner explained the situation with the Long Beach Seawall to those in attendance. He stated that the town has been looking at reconstructing the wall, but what is happening in front of the wall is also a concern. He stated that the wall has deteriorated over the last 60 to 70 years, 2' - 6' of beach has been lost over the last 60 to 70 years, J. Gardner said we know this anecdotally. He stated that before the town goes any further with the wall we need to understand what's going on with the beach. We've been waiting on FEMA storm surge numbers, we're hearing they're going to be higher than ever before, perhaps 10'. We have rising sea levels, even if there hasn't been significant erosion of the beach, is this likely in the future. Chairman Gardner stated he was hoping that the group could visit the wall today after this meeting. There isn't a lot of beach available now at high tide. We need to get a better sense of what's going on down there.

Rebecca Haney, from CZM stated that an inventory of publicly owned seawalls was completed in 2009 by the state. There was information that identified the deterioration and the condition of the wall. She continued that the beach has been lowered to a point that it cannot sustain a seawall; this was identified previously. We digitized the shoreline, we can look at the what the changes have been over time. In the 1800's it was 142' farther seaward, since about the 1950's the shorelines are right up against the wall. There are options to shore up the wall, it's a good thing that the whole area is being looked at.

If the wall is made higher and the base is made deeper, there has to be enough beach to hold up the wall. The FEMA information will be for today, it won't be for going forward. If the goal is for this beach to be in place for 50 years, you have to look at the sea rise and what will that do to storm surge. It's going to be difficult and expensive to keep water from going over the wall. The more you try to fortify the wall, damage could be happening to the beach. The residents may need to learn to adapt. Some work could be done on the wall to be sure it doesn't fall apart. You need to maintain a certain amount of beach in front of the wall. Some beaches are hard to nourish.

There are variables to design the nourishment and how frequently the nourishment will need to be replaced; storms are the variable. The challenge is adaptation measures, when the water goes over the wall and the houses are at grade, the water is channelized around the houses - causing more deterioration. Concrete sidewalks, patios, etc., cause more deterioration. Elevating the homes on pilings should be looked at. There are grants that the town can apply for to subsidize the cost of elevating the homes.

There are case studies of what some communities (Quincy and Scituate) have been doing to elevate homes. Housing mitigation grants subsidize some of the costs; these are in regular rounds of grants. Presidential declarations allow the cities and towns to apply for funding for any hazard. Incentive for residents, some residents elevate to the minimum required, if they elevate more than required, their insurance rates decrease substantially; solid surface reductions will help. Transects are needed to see the vertical changes. We have to support/maintain the wall; nourishment is needed. By just repairing the wall, a more drastic problem will be down the road.

More information is needed before any conclusions can be drawn. Because there is a wall directly in front of the homes, something needs to be done with that wall. This needs to be looked at in greater detail, someone who designs nourishment projects. A revetment takes up more space, there really isn't the room for that here. It was questioned if jetties could help. Those kinds of structures can retain some sand, but with a pocket beach,

an engineer could provide a cost/benefit analysis. CZM wouldn't suggest nourishment as the only option; the beach would continue to deteriorate.

Consultants could model different scenarios, nourishment (possible options), they can take into account sea level rise. This should not be based on current sea levels and current FEMA storm surge; think ahead to potential surge levels to make better decisions about options. A consultant would look at available information (transects and surveys done in the past) maybe do current surveys and collect any new information. The consultants will then provide a budget based on the level of analysis Rockport wants to do.

Chairman Gardner stated that there are 150 residents living in the cottages and thousands of residents who use the beach that need to be considered.

CZM said the public needs to know that their protection depends on what is done for the beach. We can't protect the houses without protecting the beach. There aren't good technologies to trap the sand. If the sand is trapped in one location, another location is damaged. The best plan is to bring in additional sand. Think about working with the homeowners on education, they need to be part of this. Elevate the homes, lower the insurance, lower the likelihood of damage.

Ward Talbot, Long Beach resident stated he has lived there for a long time; he has seen a change in the contour of the beach.

CZM said they can provide a list of consultants, but cannot recommend anyone. Some clients that have worked with the consultants in the past should be contacted for references. Computer modeling, transects, other historic information about the beach, and surveys will be helpful. CZM can provide shoreline change information but the consultants will need more than that. Whatever information can be provided will be helpful. The beach should do the dissipation. The road could ultimately be at risk. There is a certain amount of sand that can withstand a certain kind of storm. They questioned how much is realistic for the town to pay in height vs. provide some shore protection damage out front, increase the energy dissipation at the beach and help the residents elevate their homes. Plymouth conducted a similar study, but they don't have a pocket beach.

The study is really a sediment transport study including sea level rise modeling and a shore protection alternatives analysis.

Commissioner Reed questioned which comes first, beach replenishment or rebuilding the wall?

CZM stated that the work on the wall comes first typically, but the engineers can best sequence that for construction. All the nourishment should be done at once. The sequence may be to repair the oldest part of the wall first, then the nourishment, then the newer section of the wall. There's probably a certain amount of work that needs to be done to maintain the integrity of the wall, but you may not need the foot extension and the sheet piling and the things that were going to buttress it. The consultants can tell different volumes based on different options, consultants will advise what is needed for a footing.

It was recommended that we should be looking for potential sources for nourishment (dredging projects that could provide proper sediment).

Director Parisi questioned if the town should we go forward with design plans while the study is going on.

CZM recommended not doing the design until the study is done. Permitting can take 6 months to 1 year. A sediment study of Winthrop is ongoing; the initial study began about 10 years ago. There are breakwaters involved; they didn't have enough sand in the system.

The group moved from Conference Room A in Town Hall to Long Beach.